

City of Wilmington
Planning Department

CITY OF WILMINGTON
STANDARDS AND REGULATIONS MANUAL
FOR
COMMERCIAL ANTENNAS AND RELATED FACILITIES

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Preface

It is in the public interest for antennas and telecommunications facilities to be regulated in order to accommodate the communication needs of residents and businesses while protecting the public health, safety and general welfare of the community. In particular, the City of Wilmington is seeking to:

a. protect the built and natural environment from the potential adverse visual impact of antennas and telecommunications facilities and equipment through appropriate design and siting standards, applicable landscape screening, and innovative camouflage techniques, as well as through the provision of alternative treatments; and

b. maximize the use of existing, approved antenna and telecommunications sites, structures and buildings so as to minimize the need for new sites and reduce the number of overall facilities.

This Standards and Regulations Manual (Manual) presents the practices, policies, and procedures governing the installation, adjustment, and maintenance of commercial antennas and telecommunication facilities within the City of Wilmington. It establishes the requirements and working relationships between the Planning Department, Department of Licenses and Inspections, City Zoning Manager, property owners and the owner of antenna or telecommunication facilities or equipment.

The Manual (dated November 16, 2010) replaces all previous manuals issued by the City.

I. Definitions

• Antenna	As defined in Section 48-2 of the Wilmington City Code.
• Antenna, Ground Mounted	An antenna with its support structure placed directly on the ground.
• Antenna, Monopole	As defined in Section 48-2 of the Wilmington City Code.
• Antenna, Panel	Antenna or array of antennas designed to concentrate a signal in a particular area. Typically flat and rectangular, usually developed in multiples. Also known as directional antennas.
• Antenna, Roof Mounted	Antennas which are directly attached or affixed to the roof of an existing building.
• Antenna, Sled	Panel array structure designed to hold multiple antenna panels, typically found on the roof of a building.
• Antenna, Stealth Building-Mounted	Antennas which are mounted on an existing building with or without a mast, and which are painted to match the color of the exterior material of the building or are otherwise treated and placed so as not to obscure any significant architectural feature of the building.
• Antenna, Support Structure	As defined in Section 48-2 of the Wilmington City Code.
• Antenna, Whip or Omni-Directional	Antenna that is equally effective in all directions, and is typically cylindrical in shape, the size of which varies with the frequency for which it is designed.
• Carrier	A company or organization that provides wireless services.
• Clerestory	An architectural term denoting the upper level of a building, the walls of which rise above the roof lines of the lower structure and which include a band of windows, the purpose of which is to provide light and/or air to the inner space of a building.
• Collocation	As defined in Section 48-2 of the Wilmington City Code.
• DRPC	Wilmington Design Review and Preservation Commission.
• FAA	Federal Aviation Administration.
• FCC	Federal Communications Commission.
• Maintenance	Any repair work performed on an antenna, tower or other telecommunications facility that does not change the outward appearance of such antenna, tower or other telecommunications facility. This term shall not include the replacement of any external portion of an antenna, tower or other telecommunications facility.
• Panel Array	An orderly arrangement of individual panel antennas on a support structure.
• Public Structure	An existing tower edifice or building of any kind, owned or rented and operated by a federal, state, or local government agency or public or semi-public utility.

• Service Provider	Wireless telecommunications provider, a company or organization, or the agent of a company or organization that provides wireless telecommunications services. For the purpose of this chapter, providers do not include the retail agents selling services that they buy from carriers.
• Stealth Facility	Any telecommunications facility which is designed to blend into the surrounding environment, and is visually unobtrusive. Also known as concealed facilities.
• Stealth Structure	Simulated clock towers, bell steeples, light poles and similar alternative design-mounting structures that camouflage, conceal or minimize the presence of antennas or towers.
• Telecommunications Equipment Compound	A fenced-in area which houses any combination of telecommunications structures, buildings, antennas, equipment and/or towers.
• Telecommunications Facility	As defined in Section 48-2 of the Wilmington City Code.
• Telecommunications Site	A tract, parcel of land, or location that contains wireless communication facilities.
• Telecommunications System	A system which requires an analog or digital transmitter, a compatible receiver, and a physical (cable or wire) or non physical (wireless) connection.
• Tower	As defined in Section 48-2 of the Wilmington City Code.
• Tower Farm	As defined in Section 48-2 of the Wilmington City Code.
• ZBA	Wilmington Zoning Board of Adjustment.

II. Review Process

A. Pre-Meeting

Applicants wishing to establish an antenna, tower or other telecommunications facilities may request a pre-meeting with the City's Zoning Manager for the purpose of reviewing preliminary proposals in accordance with applicable standards and to seek guidance with respect to location and design.

B. Application

1. Applications for the replacement, relocation, expansion or installation of an antenna, tower or other telecommunications facility shall be made to the Department of Licenses and Inspections, and shall be subject to review and approval in accordance with the requirements of the Wilmington City Code and this manual. The time line for review, which shall be in accordance with mandatory FCC guidelines, shall not start until all required application materials have been received. Incomplete applications will not be considered. If an applicant has provided any of the required materials set forth below as part of an earlier application to the City, then the applicant may refer to the previously submitted materials and state that there have been no changes since the prior submission.

2. Required materials from the applicant include:
- a) Name, address and telephone number of applicant/s, and other agents or representatives, including the licensed carrier.
 - b) Tax map and parcel number of the subject property.
 - c) Visual impact analysis including before and after photo simulations from various locations and/or angles from which the public would typically view the site, and a map depicting where the photos were taken.
 - d) Proposed landscaping plan, including type, size, and spacing of planting materials for aesthetic mitigation; proposed fencing materials and finish colors; and descriptions of all other installations, where applicable, including signage and method of illumination, where required by federal regulation.
 - e) Copy of lease or letter of authorization from the property owner evidencing applicant's authority to pursue application.
 - f) Impact statement fully describing the effects that the proposed telecommunications facility will have on the physical environment and surrounding area, including:
 - (1) impacts on adjacent residential structures and districts, including noise;
 - (2) impacts on structures and sites of historic significance; and
 - (3) impacts on streetscapes and significant view corridors.
 - g) Proof of applicable insurance.
 - h) Maintenance and monitoring plan describing the anticipated maintenance needs for the facility, including frequency of service, personnel and equipment needs, and the traffic noise or safety impacts of such maintenance.
 - i) Safety and security plan describing the safety measures in place and methods for securing the site.

- j) If the application involves a new, expanded or relocated installation, evidence of project justification, which shall include:
- (1) Needs analysis describing how the proposed facility will address an existing service issue.
 - (2) Site selection analysis providing reasonable siting alternatives for consideration, including the identification of collocation options.
 - (3) A map indicating all existing towers, antennas and related telecommunications facility sites owned or operated by the provider within the city, and any future service areas planned, if known.
 - (4) Identity and qualifications of the person directly responsible for overseeing the design and construction of the proposed facilities.
 - (5) In cases where the application will require ZBA approval, the applicant must show evidence of community outreach efforts within the immediate neighborhood.
 - (6) Where variances are requested, a detailed explanation of why a variance is necessary.

k) Statement that the site will comply with:

- (1) all Federal Communications Commission (FCC) and Federal Aviation Administration (FAA) rules and regulations;
- (2) all rules and regulations of other federal and state agencies that may regulate telecommunications antenna siting, design and construction; and
- (3) Section 106 of the National Historic Preservation Act, where required.

3. In addition to the materials set forth in subpart (2) above, each application shall include the following materials certified by an appropriate professional engineer licensed in the State of Delaware:

a) A scaled map showing:

- (1) lot lines of subject property and all properties within 300 feet, with outlines of all structures, and the identification of residential dwellings and their distance from the proposed antenna location;
- (2) on-site and adjacent land uses and zoning designations;

- (3) specific location of the proposed antenna location, with accompanying detailed scaled drawings of the type, height and configuration of all antenna structures, related support systems and accessory buildings and equipment to be located on the site, and their distance from property lines of the primary property; and
 - (4) site plan that shows the location and relationship of telecommunications antennas, base stations, equipment cabinets and building and appurtenant structures to the location of existing features of the site including existing buildings or structures, roads, landscaping, trees and other significant natural and constructed features, topographic and geographic features, easements, and to structures on adjacent properties.
- b) Scaled elevation drawings and facade renderings showing installed equipment and proposed colors and materials. Vertical profile sketch of the building or structure indicating placement of all antennas and related equipment, and indicating heights of all structures and antennas.
 - c) If utilizing a free-standing tower or monopole, a collocation report stating the provider's commitment to allow other wireless providers to collocate antennas on their proposed facilities, and demonstrating how the facilities have been designed to allow collocations if applicable.

C. Administration of Standards – Existing Antennas

1. Maintenance

- a) This Manual shall not apply to the performance of maintenance on any legally installed antenna, tower or other telecommunications facility. Equipment replacement, equipment relocation or the installation of equipment in a new location are not considered maintenance and must be reviewed for compliance with this Manual.
- b) A building permit may be required for the performance of maintenance on any antenna, tower or other telecommunication facility. Service providers should contact the Department of Licenses and Inspections for more information.

2. Equipment Replacement

- a) With respect to the replacement of any external portion of any legally installed antenna, tower or other telecommunication facility (excluding emergency replacement), a service provider shall be required to submit an application to the City's Zoning Manager. The Zoning Manager will review the application to determine whether the proposed replacement constitutes the continuance of:

- (1) a matter of right use with equipment that will have the same or less negative visual impact on the surrounding area;
 - (2) a nonconforming use with equipment that will have the same or less negative visual impact on the surrounding area;
 - (3) a conditional use with equipment that will have the same or less negative visual impact on the surrounding area;
 - (4) a matter of right use with equipment that will have a greater negative visual impact on the surrounding area;
 - (5) a nonconforming use with equipment that will have a greater negative visual impact on the surrounding area; and
 - (6) a conditional use with equipment that will have a greater negative impact on the surrounding area.
- b) In order to determine whether the replacement of any external portion of an antenna, tower or other telecommunication facility will result in a lesser or greater negative visual impact on the surrounding area, the Zoning Manager will consider whether (1) there is an increase in size or scale, (2) there is a change in visibility, (3) concealment techniques will be utilized, and (4) the proposed replacement antenna, tower or other telecommunication facility is compatible with the color, building materials and architectural style of the building or structure to which it is attached.
 - c) If the Zoning Manager determines that the proposed replacement equipment will have the same or less negative visual impact on the surrounding area as compared to the previously installed equipment, regardless of the use classification, then this Manual shall not apply to such proposed replacement equipment.
 - d) If the Zoning Manager determines that the proposed replacement equipment constitutes the continuance of a matter of right use and such equipment will have a greater negative visual impact on the surrounding area as compared to the previously installed equipment, then the Zoning Manager shall administratively determine whether the proposed replacement equipment conforms to the requirements of this Manual.
 - e) If the Zoning Manager determines that the proposed replacement equipment constitutes the continuance of either a nonconforming use or a conditional use and such equipment will have a greater negative visual impact on the surrounding area as compared to the previously installed equipment, then the ZBA, Planning Department and/or DRPC, as applicable, will conduct a hearing to review whether the proposed replacement equipment conforms to the requirements of this Manual.

- f) In the event a service provider needs to conduct an emergency replacement of any of its equipment in order to address a service failure to multiple customers, then the service provider may, regardless of zoning classification, install such replacement equipment on a temporary basis; provided, that, it notifies the Zoning Manager in writing within seventy-two (72) hours of the installation, whether by U.S. Mail, overnight courier, personal delivery, fax or email, of (a) the location of the replacement, (b) the type of equipment being replaced, and (c) the nature of the service failure that lead to the need for the replacement. Any replacement equipment installed pursuant to this section shall be removed within thirty (30) days of the date installation unless the installation of this equipment is approved in accordance with Section II, C of this Manual or the Zoning Manager grants an extension (not to exceed 120 days) so that the review process required by Section II, C can be completed.

3. Relocation or Expansion

- a) With respect to the relocation or expansion of any legally installed antenna, tower or other telecommunication facility, a service provider shall be required to submit an application to the City's Zoning Manager. The Zoning Manager will review the application to determine whether the proposed relocation or expansion (1) constitutes a matter of right use, a conditional use or a prohibited use under the City's Zoning Code and (2) will trigger a review of the application by the Planning Department or DRPC.
- b) If the proposed relocation or expansion of any existing antenna, tower or other telecommunications facility constitutes a matter of right use, the Zoning Manager shall administratively determine whether the proposed relocation or expansion conforms to the requirements of this Manual.
- c) If the proposed relocation or expansion of any existing antenna, tower or other telecommunications facility constitutes a conditional use, the ZBA shall conduct a hearing to review whether the proposed relocation or expansion satisfies the conditions set forth in the City's Zoning Code and conforms to the requirements of this Manual.
- d) If the proposed relocation or expansion of any existing antenna, tower or other telecommunications facility constitutes a prohibited use, the ZBA shall conduct a hearing to review whether the proposed relocation or expansion meets the legal standard for a variance and conforms to the requirements of this Manual. Applications receiving a use variance from ZBA shall otherwise comply with the regulations and design standards contained in this Manual.

D. Administration of Standards – New Installation

1. With respect to the installation of any new antenna, tower or other telecommunication facility, a service provider shall be required to submit an application to the City's Zoning Manager. The Zoning Manager will review the application to determine whether the proposed new installation (1) constitutes a matter of right use, a conditional use or a prohibited use under the City's Zoning Code and (2) will trigger a review of the application by the Planning Department or DRPC.
2. If the proposed installation of any new antenna, tower or other telecommunications facility constitutes a matter of right use, the Zoning Manager shall administratively determine whether the proposed new installation conforms to the requirements of this Manual.
3. If the proposed installation of any new antenna, tower or other telecommunications facility constitutes a conditional use, the ZBA shall conduct a hearing to review whether the proposed new installation satisfies the conditions set forth in the City's Zoning Code and conforms to the requirements of this Manual.
4. If the proposed installation of any new antenna, tower or other telecommunications facility constitutes a prohibited use, the ZBA shall conduct a hearing to review whether the proposed new installation meets the legal standard for a variance and conforms to the requirements of this Manual. Applications receiving a use variance from ZBA shall otherwise comply with the regulations and design standards contained in this Manual.

E. Zoning Board of Adjustment

In approving a conditional use or granting a variance, the ZBA may impose additional conditions to the extent that it concludes such conditions are necessary to minimize the adverse effects from the antenna installation on adjoining or nearby properties. The ZBA may also seek the advice of other entities, including the DRPC, Planning Department, Public Works Commissioner, or other City Departments in their review.

F. Supplemental Review – Planning Department

Planning Department review and approval shall be required for any application for relocation or expansion of any existing antenna, tower or other telecommunications facility or the new installation of any antenna, tower or other telecommunications facility, involving property in a waterfront zoning district or urban renewal area. Proposals for antennas, towers or telecommunications facilities in waterfront zoning districts or an urban renewal area shall be subject to that district's or area's established design review standards and procedures in addition to meeting the regulations contained in this Manual.

G. Supplemental Review – Design Review and Preservation Commission

1. DRPC review and approval shall be required for any application for relocation or expansion of any existing antenna, tower or other telecommunications facility or the new installation of any antenna, tower or other telecommunications facility, regardless of the zoning district in which it is proposed, involving:
 - a) a building or structure within a city historic district or neighborhood conservation district;
 - b) a building or structure which constitutes a city landmark regardless of whether it is within a city or national historic district;
 - c) a building or structure within a national register district, which is either on, or eligible for, the national register of historic places; and
 - d) a building or structure which constitutes a national historic landmark regardless of whether it is within a city or national historic district.
 - e) a building or structure located within any other area or overlay district subject to DRPC review, including neighborhood conservation districts, waterfront review districts, C-6 special commercial districts or urban renewal areas.
2. Any proposal for an antenna, tower or telecommunications facility triggering DRPC review shall be subject to that district's or area's established design review standards and procedures in addition to meeting the regulations contained in this Manual.

H. Appeal Process

If a request for approval of an antenna, tower or other telecommunications facility is denied, the applicant may appeal the decision to the applicable body:

1. In cases where the proposed use is considered a matter of right, appeals shall be made to the Zoning Board of Adjustment.
2. In cases where proposed uses have sought the approval of the Zoning Board of Adjustment for a special exception or variance, then appeals shall be made to the Superior Court of the State of Delaware.
3. In cases where the DRPC has denied an application, appeals shall be made to the Commissioner of Licenses and Inspections.

III. General Standards for Antennas

A. Preferred Location / Collocation

1. The concealment or incorporation of antenna facilities into the interior of a building or structure is preferable, followed in order by concealment in exterior building elements, recessed rooftop placement, and locations on the recessed upper facades of tiered buildings.
2. Antenna facilities should be oriented along secondary sides or facades. In the case of ground mounted structures or equipment cabinets, location should be within the rear yard of the site, where feasible.
3. New antenna support structures shall be encouraged to locate on existing antenna facilities where feasible.
4. If a new structure is to be constructed it shall be designed structurally and electrically to accommodate both the applicants antennas and comparable antennas for at least two additional users.
5. An applicant may propose to utilize existing billboards in zoning districts where new billboards are currently permitted to establish.
6. An applicant may propose to utilize existing water towers, provided that the antenna and support structures are painted or otherwise treated to blend in with the structural background as a means of camouflage.
7. An applicant may propose to utilize existing light poles (other than those along the public rights of way), such as those within parking lots and around athletic fields, provided that concealment measures are taken.

B. Visibility and Scale

1. The smallest and least visible antennas feasible to accomplish the applicant's service objectives in a commercially reasonable manner shall be used.
2. Facilities shall be compatible in scale and integrated architecturally with the design of surrounding buildings and the natural setting.
3. All facilities proposed for locations where they would be readily visible from the public right of way within a distance of 100 feet as measured between the closest point of the property line and a point along the right of way, or from the habitable living areas of residential units within 100 feet of the facility, shall incorporate appropriate techniques to camouflage or disguise the facility, and or blend it into the surrounding environment.

C. Limitation within Public Right-of-Way

No part of any antenna or support structure, line, cable, equipment, wires or braces shall at any time extend across or over any part of any right of way, public street, highway, sidewalk or property line unless approved by the Commissioner of Public Works.

D. Corrosion Prevention

All metal support systems and components shall be maintained to prevent corrosion.

E. Camouflage and Screening

1. Screening shall have minimal visual impact and be compatible with, and not adversely affect, the city skyline or have any negative effect on surrounding residents and businesses. Antenna, antenna support structures and related equipment must be designed, constructed and suitably finished to blend in to the surrounding environment through the use of color and camouflaging architectural treatments, except where a specific color is indicated by federal, state or local authority.

2. Screening materials should be compatible with the architectural style, materials and color scheme of the existing building or structure on which it is mounted, in order to blend in and be in keeping with the general surroundings. When this is not possible, color selection shall be designed to minimize the visual impact of the antenna arrays.

3. If the antenna will be generally visible to the public, the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, blends with, or is closely compatible with the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.

4. Antennas may be covered by appropriate casings which are manufactured to match existing architectural features found on the building.

5. Stealth/Camouflage Methods: Stealth methods shall be used to disguise or otherwise hide the antennas and related equipment from view as follows:

a) Applicants are encouraged to consider architectural treatments and stealth techniques to reduce potential visual impacts for all telecommunications facilities. Stealth techniques are especially encouraged in areas easily visible from a major traffic corridor, commercial center or residential areas.

b) Stealth techniques may be required as a condition of approval when determined to be necessary to mitigate adverse visual impacts.

- c) Antennas and related equipment shall be designed to blend into the surrounding environment, by using architectural screening for roof mounted antennas, or by painting facade mounted antennas or treating them as architectural elements designed to blend in with the existing building:
 - (1) telecommunications equipment may be incorporated within pre-existing or newly designed building elements such as steeples, bell towers, clock towers, flag poles, light standards, or vertical architectural elements or similar accessory structures; and
 - (2) similarly, antennas and associated equipment may be concealed within the structural elements of an existing building or hidden behind or within parapet walls, belfries, chimneys, flagpoles, flues, monuments, spires, water towers and tanks, heating and ventilation units, air conditions units and similar mechanical equipment, solar panels, and elevator equipment.
- d) When a stealth structure is independent of an existing building, it should fit the context of its surroundings and look as though it could serve the purpose of a real structure, with any related equipment cabinets or storage building being integrated into the structure or located in similar structures.

F. Landscaping, Fencing and Buffering

1. Landscaping may be required to visually screen facilities from adjacent properties or from public view and/or to provide a backdrop to camouflage the telecommunications facilities. Guidelines include but are not limited to:
 - a) Existing on-site vegetation shall be preserved to the maximum extent practicable, or improved, and disturbance of the existing topography shall be minimized.
 - b) Additional trees and other vegetation shall be planted and maintained around the facility, in the vicinity of the project site and along any access roads in appropriate situations where such vegetation is deemed necessary to provide screening from the public right of way.
2. Screening of antennas or antenna support structures or related equipment shall be designed to minimize any adverse effect on the light, air, solar and visual access of adjacent properties.
3. Landscaping shall be provided that effectively screens the view of any equipment shelters or cabinets from adjacent uses to a planted height a minimum of six (6) feet, and in a manner that effectively reduces visual obtrusiveness of the site. A landscape strip sufficient in width to screen the use shall be maintained outside of any required fence. Landscaping shall be maintained for the duration of the facility.

4. Fencing, or solid wood or masonry walls at least six (6) feet in height shall be constructed around any support structure or accessory building or shed located in the yard of the primary property, and is subject to review.
5. Artificial trees proposed to be used as bases for cellular communication antennas, or as camouflage, are strongly discouraged. If an artificial tree is to be used, it shall be fully camouflaged within the surrounding landscape.

G. Signage

1. No advertising message shall be affixed to an antenna or its support structure, or accessory equipment.
2. Signs displaying emergency information, owner contact information, warning or safety instructions, or signs that are required by a federal, state or local agency are permitted, but must not exceed five (5) square feet in area.
3. If not otherwise governed by state or federal regulation, the design, materials, colors and location of permitted signage shall be subject to Zoning Manager review and approval.
4. When a new wireless telecommunications provider takes over an existing facility's operation, the new provider shall notify the Zoning Manager of the change in operation within thirty (30) days and the required and approved signs shall be updated within thirty (30) days to reflect the name and phone number of the new provider.

H. Illumination

1. Illumination of rooftop antennas shall not be permitted unless required for public safety purposes or by the FCC or FAA, or other state or federal agency of competent jurisdiction. Any necessary lighting shall be provided to the minimum applicable standard and shall be shielded and/or designed so as to minimize disturbance to the surrounding areas.
2. Towers and antenna structures shall not support light fixtures used to illuminate ball fields, parking lots or other similar spaces unless such towers or antenna structures are designed to look and operate like existing light poles in the area.

IV. Supplemental: Antenna Support Structures, Accessory Equipment Buildings and Sheds, All Uses

A. General

1. All accessory buildings or structures shall meet all building, zoning and design regulations and shall require a building permit issued by the City.

2. Equipment buildings should be designed in an architectural style and constructed of exterior building materials that are architecturally compatible with the primary building hosting the antenna structure, and which is consistent with surrounding development and or land use setting.

3. Materials and equipment, whether mobile or immobile, shall not be stored or parked on the subject property unless repairs to the facility are being made or such materials and equipment are used in direct support of the facility.

B. Location and Screening

1. Telecommunications equipment compounds shall be enclosed within a solid wooden or mesh fence six (6) feet high to include a locking security gate.

2. Base stations, equipment cabinets and buildings, back up generators, and all other equipment and buildings associated with building mounted antennas should be installed within the existing building envelope. When not feasible, equipment shall be low profile, screened, fenced, landscaped, painted or otherwise treated architecturally to minimize its appearance from offsite locations and to visually blend with the surrounding natural and built environment.

3. Equipment cabinets, sheds and other structures to be situated at ground level shall be located in the rear yard of the principal use and shall be screened from view with landscaping, decorative fencing or aesthetic screening treatments, or a combination thereof.

4. Accessory buildings shall be situated behind existing buildings or terrain features or may be constructed on the rooftop of a structure or building in a manner which shields the equipment compound from public view from the street level. When public view is unavoidable, a landscaping buffer shall be planted outside of the fence line and be sufficient in width to screen the building, and shall include evergreen and deciduous trees at least six feet in height at the time of planting.

C. Height

All ground mounted base stations, equipment cabinets and utility panels for telecommunications facilities shall be limited to a maximum height of ten (10) feet above grade unless other techniques are adopted to ensure minimal visual impact. Those that are taller may be partially buried underground or installed by use of another technique to maintain the ten foot height limit. Greater height may be granted by the ZBA upon a finding that it is not possible to meet the height limitation and that adequate screening of the equipment is being provided.

V. Supplemental: Monopoles, Free Standing Towers, Tower Farms

A. General

1. Structures shall be stealthed and/or painted using non-reflective matte finished shades designed to blend with the backdrop. If equipment cannot be painted, adequate screening shall be provided that blends with the predominant architectural design and material of the adjacent building, including materials, finish and texture, or other appropriate stealth treatments shall be incorporated where feasible.
2. Structures shall be located and designed to minimize visual impacts, such as in a grove of existing trees to provide natural screening or background.
3. Substantial screening by landscaping shall be used as natural screening to minimize visual impacts. All proposed vegetation shall be compatible with existing vegetation in the area.
4. Towers, monopoles and other ground mounted antennas shall not be located in the front of main structures and/or along major street frontages where they will be readily visible.
5. All ground mounted antennas that are located on undeveloped sites, where allowed, are encouraged to be converted to roof or facade mounted antennas with the development of the site when technically feasible.
6. Equipment shall not extend over a sidewalk, street or other public right of way, except upon the approval by the Commissioner of Public Works.
7. Regarding site access:
 - a) personnel may periodically visit the site for maintenance equipment modification or repairs, but only from approved access points; and
 - b) all facilities shall use existing access roads, where available. Unless visual impacts can be adequately mitigated, no new access roads shall be allowed within any proposed facility.

B. Monopoles

In high visibility locations, stealth techniques are strongly encouraged to camouflage monopoles as an art sculpture, clock tower, flag pole, or other visual form that is interesting, appropriate and compatible with the area. Such stealth installations shall be used when the siting and surrounding environment helps them to blend with the setting.

VI. Supplemental: Building Exterior Installments, including Rooftops and Facades

A. General

1. Communication sites proposed on or within existing structures such as buildings, communication towers, water towers, signs, clock towers, bell towers, and light standards shall comply with the following:
 - a) antennas requiring roof mounts or side mounts attached to the buildings on structures like clock towers are to be screened, camouflaged, or used as a decorative element to blend in with the structure;
 - b) antennas should have a low profile, such as being close to the pole or structure to which they are attached;
 - c) equipment cabinets are to be screened, camouflaged, hidden or placed in a manner similar to other types of mechanical equipment associated with the primary structure; and
 - d) screening panels may be used to mitigate visual impacts but must be designed to blend with the architecture of the building in terms of scale, materials and color. The cost of such screening shall not be used to provide justification to allow equipment or antennas to remain visible.

B. Rooftop Applications

1. Any antenna type that is proposed to be installed on the roof of an existing building shall be considered a roof antenna for the purpose of this chapter.
2. Roof antennas shall be substantially screened from public view when they are placed in locations where they significantly affect scenic views, or other sensitive land uses such as parks, schools, historic resources, and major streets.
3. Antennas, equipment cabinets, base stations, cables and other appurtenant equipment, shall be located in areas of the roof such that they are setback from the roof edge and cannot be viewed from the public right of way at street level within a radius of 100 feet from the property line.
4. Equipment buildings or cabinets may be located on a rooftop provided they do not occupy, in the aggregate, more than twenty-five (25) percent of the roof area.
5. Antennas and equipment shall be painted with a non-reflective matte finish using an appropriate color that blends with the backdrop, and shall be made visually unobtrusive by screening to match existing air conditioning units, stairs, elevator towers or other existing background.

6. Antennas and equipment shall not exceed fifteen feet in height above the point of mounting.
7. Antennas and related equipment may be contained within concealment structures, including but not limited to, simulated penthouses, architectural panels, louvers, parapet extensions, that are compatible with the design and style of the existing building and which are made of specially manufactured materials, such as fiberglass and plastic, which do not distort or block radio signals.
8. Concealment measures may also include such elements as fake chimneys, extended walls, existing pylon signs, fiberglass flag poles, existing steeples or other architectural elements.
9. Rooftop antennas shall not interfere with existing rooftop mechanical equipment, solar collectors, clerestories, signage or trees.

C. Antennas Attached to Building Exteriors

1. Screening panels may be used to mitigate visual impacts but must be designed to blend with the architecture of the building in terms of scale, materials and color. The cost of such screening shall not be used to provide justification to allow equipment or antennas to remain visible. Antennas affixed to building facades or exterior building features (such as chimneys) shall be affixed parallel to and flush with an exterior vertical element, and placed immediately below the roof line.
2. All exterior mounted antennas and equipment shall not project more than fifteen (15) feet above the top of the roof line of the building.
3. Antennas shall be integrated architecturally with the style and character of the structure or otherwise made as unobtrusive as possible.
4. Where possible, antennas should be located entirely upon an existing or newly created architectural feature so as to be completely screened from view. Otherwise, antennas shall be camouflaged by incorporating the antennas as part of a design element of the building or by painting and/or texturing the equipment to match exterior wall background.
5. Facade mounted antennas shall not be located on the front or most prominent facade (or facades in the case of corner buildings) of a structure and shall be located out of the pedestrian line of sight unless stealth techniques will reasonably eliminate visual impacts and are designed to appear as an integral part of the structure.
6. Facade mounted equipment shall not project more than eighteen (18) inches from the face of the building or other support structure, unless specifically authorized by the Zoning Manager.

D. Antennas Attached to Structures other than Buildings

1. Antennas may be permitted on existing light standards outside of the public right-of-way, such as those in parking lots or stadiums, provided that concealment measures are utilized.
2. When an antenna is located on a stadium light or utility pole, the total height of the antenna plus pole or light must not exceed one hundred and twenty five (125) percent of the average height of the lighting system at the stadium or run of poles within 500 feet of the pole on which the antenna is located.
3. Antennas may be installed on conforming signage and billboard structures in applicable districts, provided it is a district which permits new billboards. Panel antennas, which do not extend above the structure, or whip antennas, which do not exceed fifteen (15) feet in height from the point of mounting, are permitted on conforming billboard structures.
4. Antennas may be installed on freestanding smokestacks, water towers, observation towers, or other public infrastructure.
5. Antennas on signs or light standards shall be placed inside the sign or standard whenever possible or mounted so as to be accessory to the structure, not overwhelming the primary use.

VII. Supplemental: Historic Buildings and Districts

A. Compliance with General DRPC Standards.

Any proposal for an antenna, tower or telecommunications facility triggering DRPC review, regardless of whether it involves a contributing or non-contributing historic structure, shall be subject to the applicable district's established design review standards and procedures in addition to meeting the regulations contained in this Manual.

B. Contributing Building or Structure

1. The relocation or expansion of any existing antenna, tower or other telecommunications facility or the installation of any new antenna, tower or other telecommunications facility is prohibited on the following buildings or structures:
 - a) a contributing historic building or structure within a city historic district or neighborhood conservation district;
 - b) a building or structure which constitutes a city landmark, if and when designated;

- c) a contributing historic building or structure within a national register district, which is either on, or eligible for, the national register of historic places;
- d) a building or structure, regardless of location, which is either on, or eligible for, the national register of historic places; and
- e) a building or structure which constitutes a national historic landmark regardless of whether it is within a city or national historic district.

2. If a service provider needs to utilize any building or structure listed in subpart (1) above for the relocation, expansion or new installation of an antenna, tower or telecommunication facility because it will suffer a significant hardship, then the service provider's application shall be subject to the following additional requirements:

- a) A service provider shall submit a project justification statement explaining how they will suffer a significant hardship if they are not allowed to install on the proposed building or structure and that there are no other available buildings or structures that could be used to meet their needs;
- b) The installation of the antenna, tower or telecommunication facility will be fully concealed from public view and will not negatively impact the historic character of the structure or building;
- c) Section 106 of the National Historic Preservation Act; Section 106 comments shall be considered by the DRPC in their determination, to maintain local control over historic resources;
- d) Any alteration made to an historic structure to accommodate an antenna, tower or telecommunications facility shall be fully reversible;
- e) An antenna, tower or telecommunications facility shall be located so that they are not visible from the public right of way at street level, within 100 feet, as measured between the closest point of the property line and a point along the right of way, and shall incorporate appropriate techniques to camouflage or disguise the antenna, tower or telecommunications facility, and/or blend it into the surrounding environment in a manner that is appropriate to the district;
- f) When locating an antenna, tower or telecommunications facility, the integrity of an historic structure shall always be considered to ensure that the addition of an antenna, tower or telecommunications facility does not threaten the building's original materials, architectural design, or distinctive construction methods, or alter any character defining features;

- g) Antennas and support structures shall be concealed within or behind existing architectural features of historic buildings, with consideration given to incorporating facilities into existing towers, cupolas, spires or other architectural building treatments in a manner that is architecturally integrated with the style and character of the structure and which is visually unobtrusive;
- h) In cases where antennas and equipment are concealed in historic structures which require restoring part of the structure to accommodate such installation, such modifications and related undertakings will be reviewed by the DRPC for appropriate treatments, and to ensure that exterior elements are not being adversely affected in the process; and
- i) An antenna, tower or telecommunications facility shall not be sited such that its design and/or construction will damage a known or sensitive archeological site.

VIII. Miscellaneous

A. Equipment Condition

All wireless telecommunications facilities, including, but not limited to, antennas, towers, equipment, cabinets, structures, accessory structures, and signs shall be maintained by the service provider in good condition. This shall include keeping all facilities graffiti-free and maintaining security walls and fences in good condition.

B. Safety

1. Structural alteration of the supporting structure shall be required as necessary to meet safety and building code requirements prior to antenna installation.
2. Access to rooftop antennas and equipment cabinets shall be restricted to authorized personnel.
3. Access for installation and maintenance of rooftop antennas shall meet all OSHA standards and provide as much privacy and convenience to occupants of the structure and surrounding buildings as possible.
4. All facilities shall be equipped with appropriate anti-climbing devices or other similar protective devices to prevent unauthorized access to the facility. All towers shall be enclosed by security fencing not less than six (6) feet in height.

C. Code Compliance

1. All antennas and related support structures shall be constructed in accordance with all relevant codes.
2. All wireless telecommunications facilities shall comply with all FAA and FCC rules and regulations.
3. Structural design, mounting and installation of all elements shall be in compliance with manufacturer's specifications, with plans approved and certified by registered professional engineer at the owner's or service provider's own expense.
4. Proposals to erect new antennas shall be accompanied by any required federal, state or local agency license.

D. Insurance

All antennas and related support structures shall be reasonably insured by the service provider for injury and property damage caused by collapse or other catastrophic failure.

E. Cessation of Operations.

1. Providers shall provide the Zoning Manager with a notice of intent to vacate a site a minimum of thirty (30) days prior to the vacation.
2. A new application shall be required if a site is to be used again for the same purpose as permitted under the original application, if a consecutive period of six (6) months have lapsed since cessation of operations.

F. Transfer of Ownership.

If the original permitted service provider sells its interests in a telecommunications facility, the succeeding service provider shall assume all responsibilities concerning the project and shall be held responsible for maintaining consistency with all project conditions of approval, including proof of liability insurance.

G. Abandonment

1. Any communication facility or accessory equipment that is not operated for a period of twelve (12) months shall be considered abandoned except in cases where the facility or equipment can be shown to be auxiliary, back-up or emergency facilities, or otherwise not abandoned.
2. All obsolete and unused antennas and antenna support structures and any related equipment shall be removed within twelve (12) months of cessation of operation at a site. Once facilities are removed, the site shall be restored to its original or an improved condition.

3. If abandoned equipment is not removed, the City may remove such telecommunications equipment and place a lien on the property for the costs of removal or seek costs incurred through court action. The City may pursue all legal remedies available to it to insure that abandoned telecommunications facilities are removed. Delays by the City in taking action shall not in any way waive the City's right to take action. The City may seek to have the facility removed regardless of the owner's or service provider's intent to operate the antenna and regardless of any permits, federal, state or otherwise, which may have been granted.

4. If the owner of an abandoned tower or antenna wishes to use such abandoned antenna, the owner first must submit all required applications and apply for and receive all applicable permits and meet all of the conditions of this Manual as if such tower or antenna were new.